JOBED| JOURNAL OF BUSINESS AND ENTERPRISE DEVELOPEMENT

ISSN NO: ISSN-L (online): 2026-500X **Journal Website:** https://journal.ucc.edu.gh/index.php/jobed

Impact of training and development on job performance in higher education: The case of Security Guards in the University of Cape Coast, Ghana

Felix Kwame Opoku[a*], Isaac Narcotey[a] Isaac Tetteh Kwao[a] Benedict Ofori Antwi[a]

[a]School of Business, University of Cape Coast, Ghana

DOI: https://doi.org/10.47963/jobed.v11i.1211
Corresponding author: felix.opoku@ucc.edu.gh

How to cite this Paper: Opoku, F. K., Narcotey , . I. , Kwao, I. T., & Antwi, B. O. . Impact of training and development on job performance in higher education: The case of Security Guards in the University of Cape Coast, Ghana. Journal of Business and Enterprise Development (JOBED), 11(1). https://doi.org/10.47963/jobed.v11i.1211

Key Words

Employee training
Employee development
Job performance
Security guards
University of Cape Coast

Abstract

The general purpose of this study was to examine the impact of training and development on the job performance of security guards in the University of Cape Coast, Ghana. The study adopted a purely quantitative approach, using the survey questionnaire to gather data from two hundred and fifty-eight (258) security guards in the University of Cape Coast. The available data were processed using the IBM Statistical Package for Social Sciences (SPSS) Version 25.0 software and analysed using the partial least square structural equation modelling technique. The results of the study suggest that employee development positively influences their job performance. The study also found a negatively significant relationship between employee training and job performance. The study concluded that the job performance of staff in the Security Section of the University of Cape Coast can be improved by investing in their development. Because of these findings, it was recommended for management of the Security Section in the University of Cape Coast to continue their employee development interventions while searching for appropriate training programmes for their staff in the security section.

Introduction

Training is one of the most important functions of the human resource manager (Khan, 2015). Training equips the employees with the expertise, talents and approaches required to do their work (Okioma, 2011). It is a learning activity that leads to the acquisition of skills, attitudes, and knowledge needed to undertake an assigned task (Butler, 2010). Employee development on the other hand relates to the actions taken by an organisation to inspire its employees' professional and personal growth, as well as prepare them for higher positions and opportunities (Nassazi, 2013). According to Opoku et al. (2020) however, whereas employee training is a short-term learning activity for the acquisition of specific skills required for doing a particular job, employee development equips them with the general knowledge and competencies required for future responsibilities. Several organisations have invested in the training and development of their employees with the aim of ensuring their continuous existence, progress, and excellence (Wiley, 2011). Most organisations use training and development programmes to improve the talents, abilities, and attitudes of their staff (Okioma, 2011). According

to Falola et al. (2014), training and development facilitate the operational ability of employees by helping them to carry out various forms of assignments, increase the rate at which they perform their current jobs, and explore their full potential. Thus, the human resources of any organisation are the most important resource that the organisation may depend on to transform their mission and vision into reality (Khan, 2015). To do this however, requires a set of well-trained staff whose superior performance can leverage competitive advantage for the firm as a whole (Obeng, 2018).

The training and development of security guards in public universities in Ghana is worrisome. According to Darteh (2012) for instance, many of the Security Units in public universities in Ghana have implemented irregular and unplanned training programmes. While this problem may cut across all public universities in Ghana, Obisi (2011) cites the case of staff of the Security Section of the University of Cape Coast, claiming that training and development have not been given the necessary attention. In the words of Maduka (2014), training in the Security Unit of the University of Cape Coast is mostly unplanned, unsystematic, and not tailored to meet the needs of the unit. As a result, the staff of the security section lack the requisite skills for efficiently performing their duties (Ofori, 2000). This, according to Ampomah (2016) has affected the individual job performance of staff of the security section of the University of Cape Coast (Bizri et al., 2021; Siddique et al, 2019).

The Security Section of the University of Cape Coast has gone through several security breaches (Owusu et al., 2016). In a 2020 report by the Directorate of Human Resources, University of Cape Coast, nineteen (19) thefts and two (2) rape cases were reported with only fourteen (14) arrests made from January 2014 to December 2020. Again, some members of the University Community had their rooms, offices, and vehicles broken into with electronic devices and various amounts of money stolen. Students have also suffered various degrees of injury from their attackers whilst some female students were raped. In addition, the University land is being encroached upon with impunity (Owusu et al., 2016). It is upon this premise that this study is being conducted. Previous studies have shown that training and development have significant influence on the job performance of staff in most universities in Ghana. For instance, Obeng (2018) examined the effect of employee training and development on performance of senior staff of the University of Energy and Natural Resources, Sunyani, and found that effective training programmes have led to increases in employee competence, which have, in turn, improved the performance of senior staff in the university. Ampomah (2016) also examined the effect of training and development on employee performance at the Pentecost University College, Ghana. The author found that training has significant influence on the performance of staff in the Pentecost University College. Again, Cobblah (2015) examined the contribution of staff training and development programmes in selected university libraries in Ghana. Cobblah found that such programmes contributed immeasurably towards improvement in employees' professional knowledge, skills, and experience, which has enhanced their job performance in the provision of library and information services to the university community.

Although research seems to abound in staff training, development, and individual job performance in the universities in Ghana, taking recommendations from these studies to address the particular case of staff in the Security Section may be misleading because the kind of training needed by the security staff may be different from all other staff. Again, the cultural orientation of staff in the security section are different from those in other departments. There is therefore, the need to specifically test the causal relationship among training, development and job performance of staff in the security section in the university of Cape Coast. It is against this background that the current study is conducted. The specific objectives of this study are fourfold: (1) to examine the effectiveness of the training and development practices of staff of the Security Section of the University of Cape Coast, (2) to assess the performance of the staff of the Security Section in the University of Cape Coast, (3) to determine the effect of training on performance of the staff of the Security Section of the University of Cape Coast, and (4) to analyse the effect of development on the performance of the staff of the Security Section of the University of Cape Coast.

The rest of the paper is laid out as follows: Section 2 presents the theoretical and conceptual literature, while Section 3 focuses on the empirical review and development of hypotheses. Section 4 presents the results and discussion of findings, while Section 5 covers the conclusions and managerial implications of the study.

Literature Review

Reinforcement theory

The current study is underpinned by Skinner's (1957) reinforcement theory. The theory is built on the assumption that human behaviour is influenced by its consequences. Although a process theory, Skinner differentiated his theory from the other process theories such as equity theory and expectancy theory which seeks to see what is inside the human mind that propels his or her behaviour. According to Skinner, rather than focusing on the

individual's inner beliefs, values and expectations to predict his behaviour, the reinforcement theory see human behaviour as being dependent almost on external factors – the consequences of the person's actions. Thus, in Skinner's opinion, it is not necessary to look for cognitive explanation for human behaviour, for human conduct can be explained by the consequences in the environment. Skinner believed that the external conduct of an individual and his environment are very important in finding out why a person behave the way he does, and not the individual's intentions or inner feelings (Banaji, 2011). Skinner (1957) further argued that human beings are inspired to continue or avoid certain behaviours due to the nature of reinforcement that resulted from such behaviours. This is based on Thorndike's "law of effect" which holds that people will most likely engage in desired behaviours if those behaviours are positively rewarded, and avoid those that result in unfavourable consequences.

The fundamental antecedents of the reinforcement theory are reinforcement, punishment, and extinction. The reinforcement component is also called positive reinforcement which is behaviour that has a greater probability of recurrence because a positive or desirable reward is applied to that behaviour after it occurred. Put differently, positive occurs when the consequence resulting in the behaviour increases the probability that the said behaviour will continue or be repeated (Redmond, 2010). Negative reinforcement, on the other hand, involves the removal of some event in order to encourage the repetition of behaviour which is desired by management (Booth-Butterfield, 1996). Finally, punishment occurs when a negative consequence is imposed on a person to reduce or prevent an undesirable behaviour (Redmond, 2010). According to Redmond (2010), while negative reinforcement involves withholding a negative consequence to encourage a desirable behaviour, punishment involves imposing a negative consequence to discourage an unwanted behaviour. Punishment is often used as a last resort to reshape the employee's behaviour because it can result in bad consequences and create more pressure and stress for the employee. Reinforcement theory suggests that when positive reinforcement for a learned response is withheld, the individual continues to demonstrate the desired behaviour (Redmond, 2010). The theory also suggests that when a negative reinforcement continues, the undesirable behaviour will decrease in frequency and intensity, and will eventually disappear. Extinction is the withdrawal of a positive reinforcement that previously followed an undesirable behaviour in the hope that it will not be repeated (Skinner, 1957). A person attempts to extinguish another person's behaviour by withholding the positive reinforcement that encouraged the said behaviour (Redmond, 2010). The relevance of the reinforcement theory to the current study is that employees will be motivated to participate in training programmes if they feel that the training will benefit them both at the workplace and in their private life's.

Concepts of Training and Development

Priya et al. (2012) defined training as any educational pursuit which is geared towards the acquisition of a particular talent and expertise to facilitate the performance of an assigned task. Training is also defined by Opoku et al. (2020) as a short-term learning activity for the acquisition of specific skills required for doing a particular job. According to Mehmood et al. (2012), training does not only develop the capabilities of the employee for performance but also improves their motivation, job satisfaction, commitment and retention. It also enables salespeople to deal with customers in an effective manner and respond to their complaints in a timely manner. Effective training programmes provide employees with the requisite skills to meet the changing market needs and preferences. Training ensures that the employee does not only have technical work skills but are responsible and able to analyse and solve workplace problems (Sung & Choi, 2014). The object of training is to acquire the requisite skills for successfully performing one's job (Jehanzeb & Bashir, 2013). When individuals are given the required training, they make good use of the resources and devices they work with, which in turn, minimises wastage in the system (McNamara, 2010). Training opportunities represent an employer's commitment to his workforce. So, lack of training programmes tends to make employees feel a lower commitment on the part of their employers to their growth and development (Mehmood et al., 2012; Ngirwa, 2009).

There are two methods of training: (a) on-the-job training and (b) off-the-job training (Rusinovci, 2015). On-the-job training allows the trainees to develop skills in the real work situation by using the machinery and the materials involved in performing the job (Dessler, 2005). HR practitioners usually prefer on-the-job training because the employees learn the skills while performing their daily duties concurrently (Opoku et al., 2020). According to Pulley (2006), on-the-job training offers employees the expertise and understanding they need to become acquainted with the needs of clients and other business partners. On-the-job training also allows the trainees to become used to the devices and resources that are used at the workplace (Rusinovci, 2015). According to Opoku et al. (2020), on-the-job training has an explicit inspirational influence which increases organisational performance. It also allows management to put in measures for addressing internal challenges before looking for outside support. Grobler and Warnich (2016) mentioned the following as on-the-job training methods; committee assignments, enlarged and enriched job responsibilities, apprentice training, mentoring, coaching, job rotation

and lateral promotion. According to Awe et al. (2010), the disadvantage of on-the-job training is that supervisors and other internal instructors may be occupied with other activities and may not be available to offer the needed instruction. Off-the-job training on the other hand, make trainees learn their job roles away from the actual work floor, usually in an environment that is duplicated and used for that purpose (Opoku et al., 2020). According to Opoku et al. (2020), off-the-job training is usually conducted at a place that is different from the employees' workstation. In the opinion of Awe et al. (2009), off-the-job training is costlier when compared to on-the-job training and its success is restricted since it is possible that sufficient knowledge will not be transferred from the training venue to the workstation. But off-the-job training offers the learners the chance to focus on the desired training activities (Nassazi, 2013).

Employee development is a long-term learning process by which firms and employees proactively seek competencies, skills and general knowledge for future managerial responsibilities and future problem solving (Hafeez & Akbar (2015; Buckley & Caple, 2000). It is defined by Paula and Ferreira (2016) as the integrated set of planned programmes, provided over a long period to enhance the general and professional growth of a person through conscious and unconscious learning. Employee development is oriented towards equipping the person with conceptual and theoretical knowledge on work operations. Employee development is primarily for managerial staff and is futuristic in nature, focusing primarily on the skills needed to handle new jobs or new positions within the organisation (Daly & Bierly, 2006). Employees are usually developed through seminars, symposia, conferences, and workshops. For Gaiduk and Gaiduk (2009), employee development is a message to staff that management appreciate their effort, and will assist them to become professionals. The returns on investments in employee development comes in the form of efficient work and increases in output (Wiley, 2011; Armstrong, 2009).

Concept of Job Performance

One of the longest definitions of job performance was proposed by Campbell et al. (1993). According to the authors, job performance is "…synonymous with behavior. It is something that people do and can be observed. By definition, it includes only those actions or behaviors that are relevant to the organization's goals and that can be scaled or measured in terms of each individual's proficiency. Performance is what the organization hires one to do, and do well. Performance is not the consequence or results of an action; it is the action itself....and consists of goal-relevant actions that are under the control of the individual" (p. 40). Job performance is generally measured in financial and non-financial terms (Arinanye, 2015). Financial performance may be measured in terms of capital adequacy ratio, liquidity, leverage, solvency, and profitability (Moore, 2012). In non-financial terms, job performance is evaluated against market share, cost effectiveness, productivity and customer satisfaction (Karatepe, 2013). It may also be evaluated in terms of the level of co-operation, teamwork and the capability of employees. According to Sultana et al. (2012), job performance may be understood in terms of the increase in output, the ease at which technology is used, and the level of employee's motivation.

Opoku (2023) identified two forms of performance: task performance and contextual performance. Task performance is any behaviour of the employee that is directed at the job itself and intended to accomplish the job requirements as provided in the job description. They are the explicit and more technical aspects of job performance and involves the application of skills and knowledge, cognitive ability, and task habits to the accomplishment of the job. Contextual job performance on the other hand refers to behaviour that is directed towards an individual, group or organization by a member while carrying out his assigned task. Contextual performance leverages the betterment of the individual, group or organization to which the behaviour is directed. They are the variety of non-specific-job behaviours which have significant impact on the social, organizational, and psychological contexts in which the task is performed. Typical examples of contextual performance include volunteering, putting in extra effort, cooperating, following rules and procedures and endorsing the goals of an organisation (Aguinis & Kraiger, 2009; Campbell et al., 1993). Diefendorff et al. (2002) identified two differences between task performance and contextual performance. First, contextual performance does not directly support the technical core. It only influences the social and psychological environment of the organization, and this in turn, influences the technical core. Finally, contextual performance is characteristically discretionary. It is less constrained by work process technology and other task features than task performance.

Hypothesis development

Employee training, development and job performance

A plethora of studies (Bokhori, 2022; Alain et al., 2020; Nassary, 2020; Falola et al., 2018; Mwangi, 2017) have examined the positive effect of training and development on job performance. Bokhori (2022) investigated the impact of training and development on the job performance of executives in manufacturing firms at Kulim Hi-tech Park, Malaysia. The convenience sampling technique was used to select 351 respondents for

the study. Data were gathered using the survey questionnaire, and were analysed using the descriptive, correlation and regression techniques. The author found that off-the-job training and job enrichment had significant effect on the executives' performance. It was concluded that training and development have significantly positive effect on employee performance. Katere et al. (2022) also examined the effects of training and development on the performance of employees of non-governmental organizations in the Northern Region of Ghana. A sample of 150 respondents were selected using the simple random sampling technique. The close-ended survey questionnaire was used for data collection. The available data were analysed using descriptive statistics. It was found that training and development have significant positive effect on employee performance. A similar study was conducted by Nassary (2020) among employees in public institutions in Tanzania. A sample of 80 participants was selected through simple random sampling. The survey questionnaire was used for data collection, and the available data were analysed using descriptive and inferential statistics. The study revealed that training has a very strong effect on employee performance.

Much like Nassary (2020), Alain et al. (2020) investigated the effect of training and development on performance of staff of the National Financial Credit Bank in Kumba, Southwestern Cameroon. Data for the study were gathered using survey questionnaire and analysed using the Structural Equation Modelling (SEM) with all specifications observed. The authors found that soft and technical skills training have significant positive effect on employee performance in the Bank. Sothy (2019) investigated the impact of training and development on employee performance at selected private secondary schools in Phnom Penh, Cambodia. Data were gathered using the survey questionnaire and were subsequently analysed using the ANOVA Method. The study revealed that training and development had a significant positive effect on employee performance which enabled the school to maintain its competitive advantage, increase in job satisfaction, and reduce employee turnover. Falola et al. (2018) also investigated the effect of training and development on employees' performance in the Nigerian banking industry. The simple random sampling technique was used to select two hundred and twenty-three respondents for the study. Data were collected using the survey questionnaire and were analysed using the inferential and descriptive statistics. The authors found a significant positive effect of training and development on employee performance. Finally, Mwangi (2017) investigated the impact of training and development on employee performance in International Non-Governmental Organisations in Nairobi. Data were collected using the structured questionnaire. Frequencies and percentages were used to analyse the descriptive statistics, while correlation and regression were used to analyse the inferential statistics. It was revealed that a statistically significant relationship exists between training and development and employee performance. The authors concluded that training and development were essential in ensuring superior employee performance.

Following the preceding review, it is hypothesised in this study that:

Ho_1: Training has no significant effect on employee performance.

$H1_1$: Training has a significant effect on employee performance.

Ho_2: Development has no significant effect on employee performance.

$H1_2$: Development has a significant effect on employee performance.

The conceptual framework for this study is presented as follows.

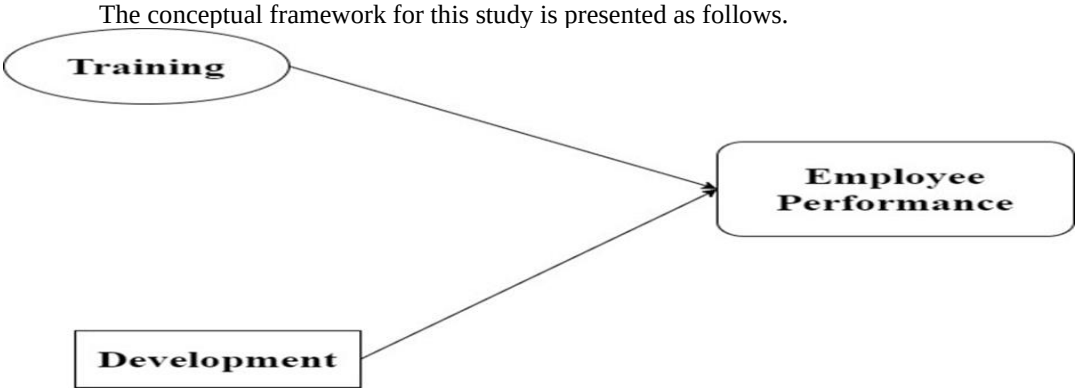

Figure 1: Conceptual Framework of training and development on employee performance
Source: Authors Construct, (2022)

Methods

The research design, sample and data collection

The study employed the positivist paradigm, using purely quantitative procedures. The descriptive and explanatory survey designs were adopted for the study. According to Leedy and Ormrod (2010), the descriptive design is the most suitable scientific tool for obtaining information about the characteristics, opinions, attitudes, or previous experience of the subjects under study. The study targeted the security guards of the University of Cape Coast. As at the time of the study, there were 305 security guards, comprising five (5) principal security officers who are responsible for designing, implementing and evaluating training programmes, six (6) supervisors who visit the various beats where the guards were manning, and 294 guards who are on the field (Directorate of Human Resource, UCC, 2020). In view of the number of subjects in the population, the census sampling technique was used. All the 305 security guards were requested to fill a survey questionnaire. The data for this study were obtained from two hundred and fifty-eight (258) security guards of the University of Cape Coast, representing a response rate of 84.6%.

Measurement

Two main constructs were measured in this study: training and development, and employee performance. The survey scales used by Demo et al., (2012) were adapted for measuring training and development in this study. The scales contained six (6) items. The sample items include, (1) I can use knowledge and behaviours learned in training at work, (2) The University I work for helps me develop the skills I need for a successful accomplishment of my duties, and (3) The University I work for invests in my development and education, promoting my personal and professional growth in a broad manner. The scales developed by Griffin et al. (2007) were used for measuring employee performance. The scale contained twenty-seven (27) items. The sample items include, (1) I carry out the core parts of my job well, (2) I always complete my core tasks well, and (3) I ensure that my tasks are completed properly.

Data processing and analysis

Data collected for this study were processed using the IBM Statistical Package for Social Sciences (SPSS) Version 25.0 software and analyzed using the Structural Equation Modelling Technique which allows for simultaneous estimation of co-variation for all variables in a model (Sarstedt et al., 2018). Data preparation was in two stages. First, the raw data were edited, and properly coded to facilitate computer data input. Each questionnaire was carefully checked for incompleteness and inconsistencies. Second, the processed data were analyzed using SMART PLS 4.0.8.4. The prepared data file was then converted into "comma-delimited" format before the final file was imported into the SMART PLS application for model configuration (Browne et al., 2019). The set-up of the PLS tool for the formulation of the model was as follows. Consistent PLS Algorithm and Consistent Bootstrapping were dully marshalled for the analysis with 5000 maximum iterations. Casewise deletion was configured for missing values (Ringle et al., 2020). A 95% confidence interval with a corresponding 5% level of significance was set for the reflective model. The 1-tailed test hypotheses were formulated because of the non-directional nature of the specific objectives of the study. As a decision rule, indicators with outer loadings less than 0.7 (not statistically significant) were eliminated to improve the measurement model (Sarstedt et al., 2018).

The evaluation of the models began with the measurement model and then the structural model (Hair et al., 2019; Tabet et al., 2019). Cronbach's Alpha (≥ 0.7) and Composite Reliability (≥ 0.7) were also computed. Cronbach's Alpha value for all the items exceeded the minimum 0.7 cut-off point (Hair et al., 2016; Ringle et al., 2015). The reliability of the measurement scales was measured with the rho_A (≥ 0.7). The rho A is the most consistent reliability measure of PLS construct scores (Henseler, 2017). Convergent validity was measured with the Average Variance Extracted [AVE]. AVE values must be or exceed 0.5 before they can adequately measure convergent validity (Ringle et al., 2015). Discriminant validity was measured with Fornell-Larcker Criterion. Discriminant validity represents the uniqueness and distinctiveness of each construct relative to other constructs in the model (Afum et al., 2019). Since reflective models are prone to biases and errors (Afum et al., 2019), it became necessary to examine the test of collinearity statistics and report the same (Hair, et al., 2016). Common method bias was measured with the Collinearity Statistics (VIF ≤ 5), as its usage in this context has been confirmed in reflective models in structural modelling (Kock, 2015).

Generally, it is acknowledged that when collinearity statistics are above 3.3 thresholds, it implies that the model is prone to common method bias and vice versa (Afum et al., 2019). Kock (2015) however, argued that VIF needs a score of 5 or lower to avoid multicollinearity problems in situations where algorithms incorporate measurement errors, especially for factor-based PLS-SEM algorithms (Hair et al., 2012). Factor loadings for all significant indicators were measured accordingly, given cognizance of top-values and t-statistics (Ringle et al., 2015). The structural model was evaluated as follows: Measurement loadings are standardized path weights connecting the factors to the indicator variables, ranging from 0 to 1. Loadings should be significant

(Garson, 2016). By convention, for a well-fitting reflective model, path loadings should be above 0.70 (Ringle, 2015: Henseler et al., 2012). The larger the loadings, the more robust and reliable the measurement model. Path coefficients (unstandardized beta) were used to assess the contributions of the predictors to the variance in the dependent variable (Schuberth et al., 2018). Effect size (f^2) was used to quantify the contributions of the predictors to the changes in the dependent variable (Ringle et al., 2015). Effect size values above 0.35, 0.15, and 0.02 are deemed to be strong, moderate, and weak (Cohen, 1988). This was assessed by the R-square, regarded as the most common effect size measure in path models (Garson, 2016). To this effect, tentative cut-off points have been recommended (Garson, 2016). Results above 0.67 are described as being "substantial," those above 0.33 are "moderate," and above 0.19 are "weak." The findings were presented in Tables and Figures for easy understanding and reporting. Finally, the Q^2 was analysed using the PLS predict. Q-square measures whether a model has predictive relevance or otherwise (> 0 is good). A Q^2 above 0 shows that the model has predictive relevance.

Results and Discussions

Structural model specification

The structural model had two exogenous and one endogenous constructs. The exogenous constructs are training and development and the endogenous construct is employee performance.

Internal consistency and reliability assessment

The internal consistency reliability was used to assess the model. Internal consistency reliability provides a conservative measurement of a model. Composite reliability and Cronbach Alpha were used to measure internal consistency reliability. According to Hair et al. (2016), there is satisfactory internal consistency among a study's construct (measurement model) when such constructs have composite reliability and Cronbach Alpha scores above the minimum threshold of 0.700. According to Henseler et al. (2015), composite reliability is the most robust for assessing internal consistency reliability, while Cronbach alpha is the lowest bound assessor of internal consistency reliability. The constructs' internal consistency reliabilities are presented in Table 1.

Table 1: Internal Consistency Reliability

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
Development	0.932	0.934	0.945
Training	0.900	0.907	0.921
Employee performance	0.894	0.901	0.916

Source: Field Survey (2023)

The Cronbach's Alpha value (Table 1) for each item was higher than the threshold of 0.700 (Hair et al., 2016). Furthermore, all the constructs attained a composite reliability value above the 0.700 thresholds (Hair et al., 2019). Thus, based on the results of Table 1, the constructs are reliable for further statistical analysis.

Convergent validity assessment

Table 2 presents the convergent validities of the constructs.

Table 2: Convergent Validity Assessment Result

Construct	Items	Loadings	Std. Error	T Statistics	P-value	AVE
Employee Performance	EAP3	0.716	0.072	10.009	0.000	0.681
	EAP7	0.931	0.043	21.552	0.000	
	ECP3	0.770	0.056	13.733	0.000	
	ECP4	0.695	0.071	9.733	0.000	
	ECP6	0.592	0.071	8.287	0.000	
	ECP7	0.768	0.060	12.843	0.000	
	ECP8	0.722	0.060	11.957	0.000	
Employee Development	ED1	0.774	0.053	14.656	0.000	0.627
	ED2	0.859	0.035	24.370	0.000	
	ED3	0.820	0.037	22.070	0.000	
	ED4	0.771	0.049	15.613	0.000	
	ED5	0.858	0.036	23.547	0.000	
	ED6	0.695	0.063	11.027	0.000	

	ED7	0.754	0.053	14.208	0.000	
	ED8	0.822	0.075	11.019	0.000	
Employee Training	TE2	0.525	0.109	4.811	0.000	0.609
	TFA4	0.857	0.075	11.365	0.000	
	TFA5	0.692	0.088	7.896	0.000	
	TM10	0.549	0.105	5.222	0.000	
	TM3	0.786	0.085	9.226	0.000	
	TM4	0.849	0.078	10.902	0.000	
	TM6	0.779	0.095	8.209	0.000	

Source: Field Survey (2023)

Convergent validity can only be established if two essential requirements are met: indicator loadings and the average variance retrieved from the data (AVE). According to Hair et al. (2019), models with outer loadings of 0.700 or more need to be maintained, while those with outer loadings of less than 0.700 should be eliminated. From Table 2, almost all indicators assumed indicator loadings above 0.700 except ECP4, ECP6, ED6, TE2, TFA5 and TM10. However, these indicators with loadings below 0.7 were retained because their deletion could not improve CA and CR (Hair et al., 2014). As each construct assumed an AVE score above 0.500, there is convergent validity for the study. Figure 2 presents the structural model with the respective indicator item loadings.

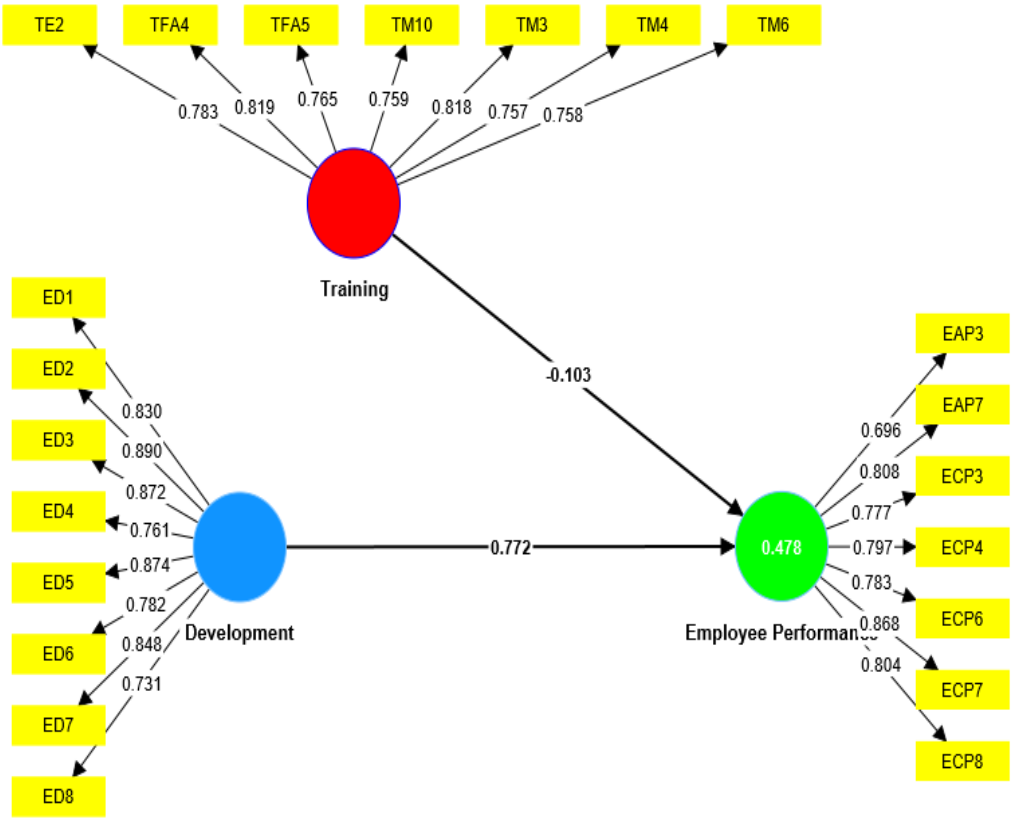

Figure 2: Measurement Model Results
Source: Field Survey (2023)

Discriminant validity assessment

The Heterotrait-Monotrait Ratio criteria was used to determine the discriminant validity of the constructs (Hair et al., 2019). The results are presented in Table 3.

Table 3: Discriminant Validity Assessment- Heterotrait-Monotrait Criterion

	Development	Employee Performance	Training
Development			

Employee Performance	0.739	
Employee Training	0.880	0.564

Source: Field Survey (2023)

Ideally, for a construct's discriminant validity to be satisfactory, its' Heterotrait-Monotrait value should be below 0.85 (Kline, 2011) and 0.9 (Henseler et al., 2015). Notwithstanding, when the Heterotrait-Monotrait value is above 0.9 but closer to 0.9 than it is closer to 1.0, the score is marginally acceptable for further statistical analysis (Benitez et al., 2020; Gaskin et al., 2018). The discriminant validity results, (as in Table 3), show that there is no problem with discriminant validity, as each construct's score is above 0.950 (Benitez et al., 2020; Gaskin et al., 2018). Thus, the discriminant validity of the constructs is valid for further statistical analysis.

Structural model

This section provides the output of the predictive model and evaluates the structural model fitness in predicting the interaction between exogenous and endogenous constructs. The procedure is laid out as follows: the author begins with an examination of the structural model for collinearity issues, followed by an assessment of the significance of the structural model relationships, then by an analysis of the coefficient of determination (R^2), an evaluation of the effect size (F^2), and an assessment of the predictive relevance (Q^2) or effect size (Hair et al., 2016).

Collinearity statistics (VIF)

Collinearity statistics was measured with the VIF. According to Hair et al. (2016), tolerance values below 0.200 (or a VIF value of more than 5) should be viewed as crucial levels of collinearity. The constructs' measures of collinearity statistics are presented in Tables 4 and 5.

Table 4: Outer VIF Values

	VIF
EAP3	1.593
EAP7	2.126
ECP3	2.119
ECP4	2.591
ECP6	2.534
ECP7	3.512
ECP8	2.708
ED1	3.249
ED2	4.874
ED3	3.821
ED4	2.232
ED5	4.496
ED6	2.927
ED7	3.633
ED8	1.798
TE2	2.479
TFA4	2.518
TFA5	2.259
TM10	2.562
TM3	2.517
TM4	1.916
TM6	2.227

Source: Field Survey (2023)

Table 5: Inner VIF Values

	Employee Performance
Development	2.913
Training	2.913

Source: Field Survey (2023)

As in Tables 4 and 5, there were no issues of collinearity among the survey's constructs. None of the constructs had a VIF value above 4.999 which is deemed to be the minimum acceptable score/value for no collinearity issues or biases (Hair et al., 2016). Therefore, the VIF scores show that there is no common method bias for all the constructs measured.

Coefficient of determination (R^2)

The R^2 value is the most often used metric for evaluating the predictive ability of a model. It represents the variation in the exogenous construct that is explained by variations in the exogenous constructs. The predictive power of exogenous construct(s) on endogenous construct runs from 0 to 1, with higher values indicating more predictive power. The predictive capacity of the model is presented in Table 6.

Table 6: Coefficient of Determination (R^2)

	R-square	R-square adjusted
Employee performance	0.478	0.475

Source: Field Survey (2023)

Results from Table 6 showed that employee training and development accounted for a moderate positive variance in employee performance (R^2=0.478) when all other factors not captured in this study but are affecting employee performance are statistically controlled for. Thus, 47.80% positive variance in employee performance was attributed to changes in employee training and development.

Effect Size (F^2)

The effect size (F^2) was used to assess the effect of each exogenous latent variable on the model's endogenous variable (Cohen, 1988). Effect size values above 0.35, 0.15 and 0.02 were regarded as strong, moderate and weak (Henseler, 2017; Cohen & Manion, 2007). Table 7 presents the effect sizes (F^2) of the various structural paths observed.

Table 7: *Effect Size (F^2)*

	Employee Performance
Employee Development	0.392
Employee Training	0.007

Source: Field Survey (2023)

As in Table 7, the predictive structural paths of employee development and job performance recorded a moderate effect size with an F^2 value of 0.392. However, the predictive structural paths of employee training and job performance recorded a weak effect size with F^2 value of 0.007.

Predictive relevance (Q^2)

The Q^2 statistic was used to measure the predictive relevance of the structural model. Q^2 values greater than 0 implies that the exogenous constructs have predictive importance for the endogenous construct (Hair et al., 2019). A blindfolding approach was used with an omission distance of 7 to estimate the cross-validated redundancy values from the structural and measurement model scores. For the endogenous construct, there was predictive relevance. Table 8 and Figure 3 presents the Q^2 values of the model.

Table 8: Predictive Relevance (Q^2)

	SSO	SSE	Q^2 (=1-SSE/SSO)
Development	3536.000	3536.000	0.000
Employee Performance	3094.000	2209.642	0.286
Training	3094.000	3094.000	0.000

Source: Field Survey (2023)

Table 8 signals that employee performance has predictive relevance to both training and development. This was because employee performance in the model (evident by Q^2) had Construct Cross Validated

Redundancy scores above zero (0). This means that all the exogenous constructs together are able to explain the model.

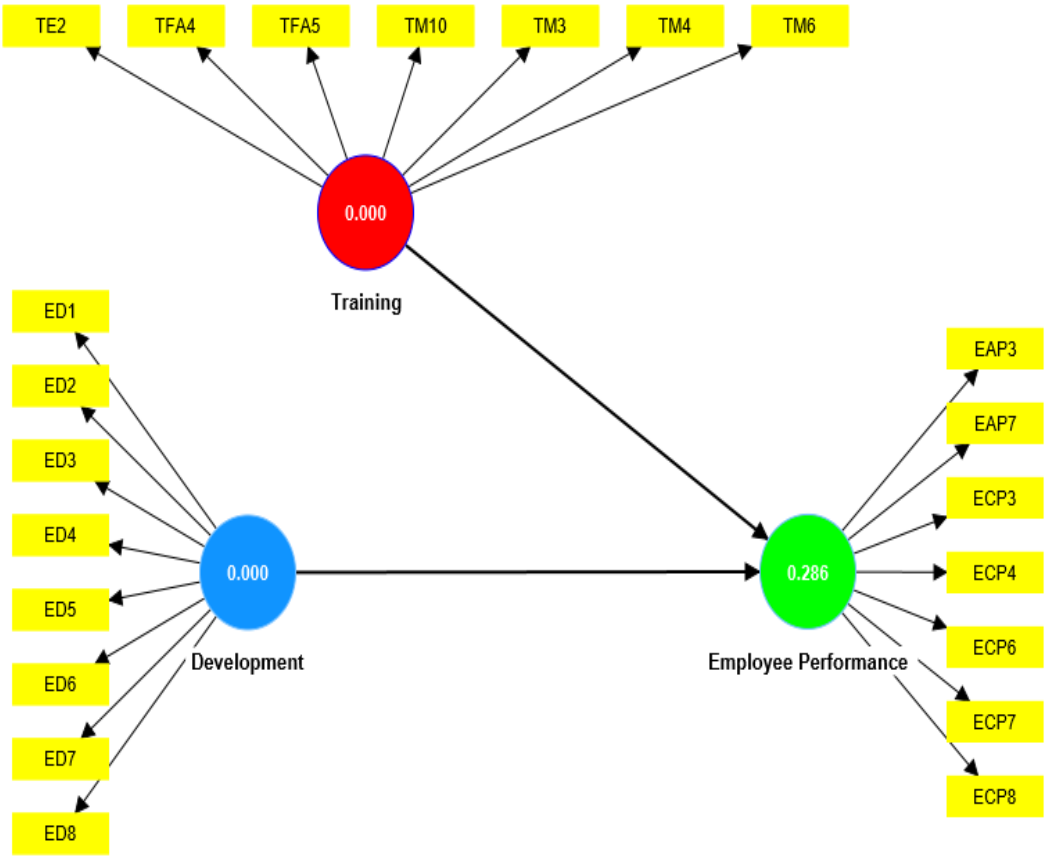

Figure 3: Predictive relevance (Q^2)
Source: Field Survey (2023)
Specific direct effect path coefficients and decision on hypotheses

The specific direct effect of the model was assessed using the path coefficient, the t-statistics, and p-value. To determine the relevance of path coefficients, the following criteria was used: a p-value less or equal to 1.65 is 10 %, 1.96 is 5%, and 2.57 is 1%. Conventional decision guidelines were used to find significant path coefficients between exogenous and endogenous constructs. Table 9 presents the output of the Specific Direct Effect Model Path Coefficients. Per the nature of hypotheses 1_0, 1_1, 2_0 and 2_1, the survey sought to assess the direct effects of each of employee training and development on the performance of staff of the Security Unit at the University of Cape Coast.

Table 9: Specific Direct Effect Path Coefficient

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Development -> Employee Performance	1.079	1.071	0.129	8.394	0.000
Training -> Employee Performance	-0.375	-0.364	0.156	2.408	0.016

Source: Field Survey (2023)

As in Table 9, it is evident that employee development is a significant positive predictor of employee performance (Beta=1.079; t-stat=8.394; p=0.000; p<0.050). Employee training also contributed significantly to the variance in employee performance (Beta=-0.375; t-stat=2.408; p=0.016; p<0.050).

Discussion

The current study investigated the effect of employee training and development on job performance of security guards in the University of Cape Coast. To this end, two hypotheses were formulated. The first hypothesis sought to assess the direct relationship between employee training and job performance of security guards in the university of Cape Coast. Figure 2 and Table 9 showed that the hypothesised path relationship between employee training and job performance was statistically significant (Beta=-0.375; t-stat=2.408; p=0.016; p<0.050). The T-statistic (2.408) was greater than 1.96. The direction of relationship was however negative as in Figure 2 and Table 9. Practically, the negative relationship implies that a unit increase in employee training will lead to a decrease in employee performance. Hence, the study failed to reject hypothesis 1_0. These results imply that the job performance of security guards in the University of Cape Coast does not improve with changes in employee training. Perhaps, this may be due to the nature of training programmes or processes adopted by management. A faulty training intervention in areas such as inadequate need assessment, lack of preparation, ill-planned content delivery, incompetent facilitators, outmoded facilities or the lack of appropriate training evaluation methods can produce such outcomes. These results have failed to support the findings of Bokhori (2022) that off-the-job training and job enrichment are significant predictors of executives' performance in manufacturing firms at Kulim Hi-tech Park, Malaysia. The results are inconsistent with the findings of Nassary (2020) that training has significant positive effect on employee performance in public institutions in Tanzania. Finally, the findings of this study do not support the findings of Alain et al. (2020) that soft and technical skills training have significant positive effect on job performance of staff of the National Financial Credit Bank in Cameroon.

The second hypothesis sought to examine the effect of employee development on the job performance of security guards in the University of Cape Coast. The results in Figure 2 showed that the hypothesised path relationship between employee development and job performance was statistically significant (Beta=1.079; t-stat=8.394; p=0.000; p<0.050). The T-statistic (8.394) was greater than 1.96. The direction of relationship was positive as in Figure 2 and Table 9. Practically, it can be inferred from these results that a unit increase in employee development will lead to an increase in employee performance. These results imply that employee development significantly contributes to the positive variance observed in the performance of security guards in the University of Cape Coast. In more practical terms, a unit increase in employee development will lead to an increase in employee performance. Contrarily, a unit decrease in employee development will warrant a reduction in the performance of security guards in the University. The results of this study are consistent with the findings of Falola et al. (2018) that there is a significant positive effect of employee training and development on the job performance of staff in the Nigerian banking industry. The results also support the findings of Nakacwa et al. (2022) that training and development has a significant positive effect on performance of staff at Uganda Wildlife Authority. Finally, the results of the current study corroborate the findings of Katere et al. (2022) that training and development has significant positive effect on the performance of staff in Non-Governmental Organizations in the Northern region of Ghana.

Managerial implications

The importance of this study lies on its likelihood to add up to theory, policy formulation and human resource management practice. This study is the first comprehensive study to assess the relationship between training and development, and performance of Security guards in the University of Cape Coast. In terms of theoretical significance, the study advances knowledge and understanding of how the integration of training and development practices impact on security staff performance in public universities in Ghana. Apart from its potential academic contributions, the research has significant real-world effects. The outcome of the research discloses the function and position of training and development in the Security Unit of the University of Cape Coast. In this way, it is expected that the outcomes of the study would benefit the Directorate of Human Resource Management of the University of Cape Coast in formulating realistic and far-reaching policies for revamping the Security Section. Second, the findings of the study also enrich the competencies that Human Resource Professionals require to identify, utilise, and combine the skills, knowledge and experiences of security guards for superior employee performance in the University. Finally, the study provides useful information for the creation and execution of policies relating to employee performance.

Conclusion

The current study investigated the effect of employee training and development on job performance of security guards in the University of Cape Coast. Data were obtained from two hundred and fifty-eight (258) security guards in the University. The available data were analysed using the Structural Equation Modelling. The study concluded that the development of security guards in the University of Cape Coast significantly contributes to their job performance, whereas training of security guards in the same University has a negatively significant influence on their performance. The study proves again that development causes statistically significant positive changes in the performance of employees as held by previous studies (Katere et al., 2022; Nakacwa et al., 2022;

Falola et al., 2018). Therefore, it is sound for management of the Security Section in the University of Cape Coast to continue or even improve on the existing development interventions.

References

Afum, E., Sun, B. Z., & Kusi, C. L. Y. (2019). Reverse logistics, stakeholder influence and supply chain performance in Ghanaian manufacturing sector. *Journal of Supply Chain Management Systems*, *8*(3), 13-19.

Aguinis, H. & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, 60, 451-474.

Alain, V.N., Tanwani S.O., & Sheku A.F. (2020). The effects of training and development on employee's performance: The case of the National Financial Credit Bank (NFCB) of the Centre Region of Cameroon, *International Journal of Science and Business, 4*(6), 88-106.

Aldag, R.J., & Stearns, T.M. (1987). *Management*, South-Western Publishing Co., Cincinnati.

Ampomah, P. (2016). The effect of training and development on employee performance in a private tertiary institution in Ghana. *Case Study: Pentecost University College (Puc)-Ghana). Asian Journal of Social Sciences and Management Studies*, *3*(1), 29-33.

Arinanye, R.T. (2015). Organizational factors affecting employee performance at the College of Computing and Information Sciences (COCIS). Unpublished Master's Dissertation, Uganda Technology and Management University, Kampala – Uganda.

Armstrong, M. (2009). *A handbook of human resource management practice*. 11th Edition. Kogan Page Ltd. London

Awe, E. M., Stephenson, P., & Griffith, A. (2010). Impact of vocational training on skilled labour shortage within the Nigerian construction sector. In *W089-Special Track 18th CIB World Building Congress May 2010 Salford, United Kingdom* (Vol. 252).

Banaji, M. (2011). *Reinforcement theory*. Harvard gazette.

Barron, H. O., & Hagerty, M. C. (2014). Impact of training and development on organizational effectiveness: Evidence from selected public sector organizations in Nigeria. *European Journal of Business and Management*, *6*(29), 66-75.

Benitez, J., Henseler, J., Castillo, A., & Schuberth, F. (2020). How to perform and report an impactful analysis using partial least squares: Guidelines for confirmatory and explanatory is research. *Information & Management*, 57(2), 1–16.

Bizri, R., Wahbi, M., & A.l. Jardali, H. (2021). The impact of CSR best practices on job performance: The mediating roles of affective commitment and work engagement. *Journal of Organizational Effectiveness: People and Performance*, 9(2), 21 – 32.

Bokhori, M. A. (2022). The effect of performance management on executives' performance in manufacturing firms: A case study at KULIM-HI TECH PARK KULIM, KEDAH, MALAYSIA. *International Journal of Modern Trends in Social Sciences (IJMTSS)*, 5(20), 12 – 30.

Browne, O., O'Reilly, P., Hutchinson, M., & Krdzavac, N. B. (2019). Distributed data and ontologies: An integrated semantic web architecture enabling more efficient data management. *Journal of the Association for Information Science and Technology*, *70*(6), 575-586.

Buckley, R., & Caple, J. (2000). *The theory and practice of training*. (4th Edition) Kogan Page Ltd.

Campbell, C. H., Ford, P., Rumsey, M. G., Pulakos, E. D., Borman, W. C., Felker, D. B., & Riegelhaupt, B. J. (1990). Development of multiple job performance measures in a representative sample of jobs. *Personnel psychology*, *43*(2), 277-300.

Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. In N. Schmmitt, W. C. Borman, & Associates (Eds), *Personnel selection in organizations*. San Francisco: Jossey-Bass.

Cobblah, M. A. (2015). *The contribution of staff training and development programmes to effective library and information services in selected university libraries in Ghana* (Doctoral dissertation, University of South Africa).

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Second Edition. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Cohen, L., & Manion. M. (2007). *Research methods in applied linguistics*. New York: Oxford University Press.

Daly, P. S., & Bierly, P. E. (2006). Alternative knowledge strategies, competitive environment, and organizational performance in small manufacturing firms. *Entrepreneurship Theory and Practice, 31*(4), 493-516.

Darteh, T. (2012). Human resource development of professionals in an emerging economy: The case of the Tanzanian Construction Industry. *The International Journal of Human Resource Management, 17*(3), 440-463.

Demo, G., Neiva, E. R., Nunes, I., & Rozzett, K. K. (2012). Human resources management policies and practices scale: Exploratory and confirmatory factor analysis. *Brazilian Administration Review, 9*(4), 395–420.

Dessler, G. (2005). Training and developing employees. *Human Resource Management*, 295.

Diefendorff, J.M., Brown, D.J., Kamin, A.M., & Lord, R.G. (2002). Examining the roles of job involvement and work centrality in predicting organizational citizenship behaviours and job performance. *Journal of Organizational Behaviour*, 23, 93 – 108.

Directorate of Human Resource (2020). University of Cape Coast, Ghana.

Falola, H.O., Osibanjo, A.O., & Ojo, S.I. (2014). Effectiveness of training and development on employees' performance and organisation competitiveness in the Nigerian Banking Industry. *Economic Sciences, 7*(56) 161 – 170.

Gaiduk, R., & Gaiduk, J. (2009). Limiting the brain drain: Determinants of employee organisational attachment in Lithunia. *Baltic Journal of Management, 4*(2), 149-168.

Garson, G. D. (2016). *Partial least squares: Regression and structural equation models*. Asheboro, NC: Statistical Associates Publishers.

Gaskin, J., Godfrey, S., & Vance, A. (2018). Successful system use: It's not just who you are, but what you do. *AIS Transactions on Human-Computer Interaction, 10*(2), 57-81.

Griffen, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent context. *Academy of Management Journal*, 50(2), 327 – 347.

Grobler, P. A., & Warnich, S. (2016). Human resource development (HRD) practices in local vs foreign companies in South Africa: Is there a difference? *Journal of Contemporary Management*, *13*(1), 702-724.

Hafeez, U., & Akbar, W. (2015). Impact of training on employee's performance: Evidence from pharmaceutical companies in Karachi, Pakistan. *Business Management and Strategy*, *6*(1), 49-64.

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.

Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modelling (PLS-SEM): An emerging tool in business research. *European Business Review, 7*(2), 68-79.

Hair Jr, J. F., Sarstedt, M., Matthews, L. M., & Ringle, C. M. (2016). Identifying and treating unobserved heterogeneity with FIMIX-PLS: Part I–method. *European Business Review, 4(2), 14 – 26.*

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of The Academy of Marketing Science, 40*(3), 414-433.

Heathfield, S. M. (2012). *Management and organizational behaviour*, Boston: Allyn and Bacon Publishers. pp. 6-8.

Henseler, J. (2017). Bridging design and behavioral research with variance-based structural equation modeling. *Journal of Advertising, 46*(1), 178-192.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2012). Using partial least squares path modeling in advertising research: basic concepts and recent issues. In *Handbook of Research on International Advertising*. Edward Elgar Publishing.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science, 43*(1), 115-135.

Jehanzeb, K., & Bashir, N. A. (2013). Training and development program and its benefits to employee and organization: A conceptual study. *European Journal of business and management*, *5*(2), 1 – 12.

Karatepe, O.M. (2013). High-performance work practices, work social support and their effects on job embeddedness and turnover intentions. *International Journal of Contemporary Hospitality Management*, 25(6), 903-921.

Katere, E., Sutinga, P., Ohene-Adjei, W. & Arhin, D. (2022). Effects of training and development on the performance of employees of non-governmental organizations in the northern Region of Ghana. *World Journal of Advanced Research and Reviews*, 16(02), 531–538.

Khan, M. A. (2015). The role of training in reducing poverty: The case of the ultra-poor in Bangladesh. *International Journal of Training and Development, 18*(4), 271-281.

Kline, R. B. (2011). *Principles and practice of structural equation modelling* (3rd eds), The Guilford Press, New York.

Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration, 11*(4), 1-10.

Leedy, P. D., & Ormrod, J. (2010). *Practical research: Planning and design*. Ohio, Merrill Prentice Hall.

Maduka, C., (2014). Evolution of the nature and application of competence in the learning and development of oil and gas. *Industry Personnel Training, 37*(4), 56-63.

McNamara, R., (2010). Development and evaluation of a psychosocial intervention for children and teenagers experiencing diabetes (DEPICTED): A protocol for a cluster randomised controlled trial of the effectiveness of a communication skills training programme for healthcare professionals working with young people with type 1 diabetes. *BMC Health Services Research, 10*(1), 36-43.

Mehmood, S., Anwar, S., Ahmed, J., Tayyab, M., & O'Regan, D. (2012). A survey of UK surgical trainees and trainers; latest reforms well understood but perceived detrimental to surgical training. *The Surgeon*, *10*(1), 9-15.

Moore, D. A., & Tenney, E. R. (2012). Time pressure, performance, and productivity. Neale, M.A. and Mannix, E.A. (Ed.) Looking Back, Moving Forward: A Review of Group and Team-Based Research (Research on Managing Groups and Teams, Vol. 15), Emerald Group Publishing Limited, Bingley, pp. 305-326.

Mwangi, S. (2017). *The influence of training and development on employee performance: A case of Somalia non-governmental organization consortium in Nairobi* (Doctoral dissertation, United States International University-Africa).

Nassary, R. P. (2020). The effects of training on employees‟ performance in public institutions: A case of arusha municipality, Tanzania. *International Journal of Research and Innovation in Applied Science (IJRIAS)*, V(IX), 1924–1930.

Nassazi, A. (2013). *Effects of training on employee performance: Evidence from Uganda.* Unpublished master's thesis, University of applied sciences, Uganda.

Ngirwa, C.A. (2009). *Human Resource Management in African Work Organizations*. National Printing Co. Ltd, Dar es Saalam.

Obeng, D. (2018). *The effect of employee training and development on performance of senior staff at the University of energy and natural resources, Sunyani* (Doctoral dissertation, University of Cape Coast).

Obisi, C. (2011). Employee training and development in Nigerian organisations: Some observations and agenda for research. *Australian Journal of Business and Management Research, 1*(9), 82-89.

Okioma L.I (2011). *Effects of employee empowerment on performance. A case of teachers in hamisi constituency*. Unpublished MBA Project. University of Nairobi.

Olaniyan, T. & Lukas, F. (2018). *The role of in-service teacher training (inset) on improving teaching and learning process in public secondary schools in Tanzania: A case of Bukoba municipal council in Kagera region* (Doctoral dissertation, The Open University of Tanzania).

Opoku, F. K., Senyo, I.K.A & Kassimu, I. (2020). HRM practice and innovative work behaviour: Organisational politics as mediator and personal locus of control as moderator. *Journal of Business and Enterprise Development, 9,* 101–117.

Owusu, G. A., Akoto, J. S., & Abnory, M. M. (2016). Is our safety and security guaranteed on University of Cape Coast Campus? Undergraduates Students' Perceptions. *International Journal of Higher Education, 5*(4), 75-85.

Priya, R., & Aruna, P. (2012). SVM and neural network-based diagnosis of diabetic retinopathy. *International Journal of Computer Applications*, *41*(1).

Pulley, P. A. (2006). On-the-job-training: Easy to do if you have the right program. *Online Journal for Workforce Education and Development*, *2*(2), 4.

Redmond, B. F. (2010). Reinforcement theory: What are the rewards for my work. *Work Attitudes and motivation, 3(1), 26 - 32*.

Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. P. (2020). Partial least squares structural equation modelling in HRM research. *The International Journal of Human Resource Management*, *31*(12), 1617-1643.

Ringle, C. M., Wende, S., & Becker, J. M. (2015*). SmartPLS 3 [computer software]*. SmartPLS GmbH.

Rusinovci, X. (2015). The effects of persistent training and development on personnel performance and productivity. *International Journal*, *4*(4), 9 - 18.

Sarstedt, M., Bengart, P., Shaltoni, A. M., & Lehmann, S. (2018). The use of sampling methods in advertising research: A gap between theory and practice. *International Journal of Advertising*, *37*(4), 650-663.

Schuberth, F., Henseler, J., & Dijkstra, T. K. (2018). Partial least squares path modelling using ordinal categorical indicators. *Quality & Quantity*, *52*(1), 9-35.

Siddique, F., Sakib, S., & Siddique, M. A. B. (2019). Recognition of handwritten digit using convolutional neural network in python with TensorFlow and comparison of performance for various hidden layers. In *2019 5th international conference on advances in electrical engineering (ICAEE)* (pp. 541-546). IEEE.

Skinner, B. F. (1958). Reinforcement today. *American Psychologist*, *13*(3), 94.

Sothy, C. (2019). The impact of training and development on employee performance: A case study of selected private secondary schools in Phnom Penh Cambodia. *Global Journal of Human Resource Management*, 7(3), 40 – 49.

Sultana, A., Irum, S., Ahmed, K. & Mehmood, N. (2012). Impact of Training on Employee Performance: A Study of Telecommunication Sector in Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 4 (6), 646- 661.

Sung, S. Y., & Choi, J. N. (2014). Do organizations spend wisely on employees? Effects of training and development investments on learning and innovation in organizations. *Journal of Organizational Behaviour*, *35*(3), 393-412.

Tabet, S. M., Lambie, G. W., Jahani, S., & Rasoolimanesh, S. M. (2019). An analysis of the world health organization disability assessment schedule 2.0 measurement model using partial least squares–structural equation modeling. *Assessment*, 1073191119834653.

Wiley, S. (2011). Building morale: The key to firm growth. CPA *Management Forum, 7*(2),12-19